

Amendments to the Specification

[0102] The pedestals of the subject invention comprise a furniture component that pivotally and slidably engages at least two telescoping columns. The furniture component is able to pivot and slide in relationship to the columns thus eliminating any sideways force from acting on the telescoping members of the height adjustable telescoping columns as a result of off center loading on the columns, or having the columns in non-parallel alignment with each other, or having one column extend higher or faster than another column. The sideways forces that normally plague conventional multiple column height adjustable columns due to their rigid, fixed connection to the furniture component, are eliminated from the subject invention because each column is slidable and pivotally engaged in their relationship to each other and the furniture component. The result of this slidable, pivotal relationship of the columns to the furniture component is that the columns of the subject invention are never pulled or pushed by the furniture component. If the furniture component were rigidly fixed to the furniture component columns, a non parallel alignment of one column to another would cause one column to push or pull the furniture component toward or away from another column as the columns extended or retracted. The rigid connections of these columns to the furniture component causes non-parallel columns to create sideways forces that act on both columns as they extend or contract. Sideways forces that cause binding and jamming of the telescoping members of the height adjustable telescoping columns of conventional pedestals increase in direct proportion to the degree in which the columns are off parallel with each other. These sideways forces do not exist in the subject invention.

[0112] Figures 16-18 show another preferred embodiment of a furniture support assembly 68 comprising a pivoting furniture support mechanism 70 and a sliding furniture support mechanism 72. The pivoting furniture support mechanism 70 comprises a base 74, a pivot 76, and a pivot plate 78. Applicant notes that one skilled in the art would further realize that the base 74 alone or the pivot 76 can serve as a pivoting and/or sliding furniture support mechanism. Mounted to the pivot plate 78 of the pivoting support mechanism is the sliding furniture support mechanism. The sliding furniture support mechanism comprises a first surface 80 and a second surface 82 which move

laterally in relationship to one another. In this embodiment, the second surface **82** comprises angle walls **84** to entrap the first surface and prevent it from falling away from the second. Optionally, this embodiment also includes a frictional slide control means **85**. The friction slide control means increases or decreases the friction between the sliding surfaces controlling the rate or ease of slide. One skilled in the art would realize that there are a number of means to achieve this control. In this embodiment, friction is controlled by a screw knob that increases and decreases the distance between the first sliding surface and the second sliding surface. These furniture support assemblies allow bi-directional pivot and bi-directional sliding. Bi-directional sliding is sliding in lateral movement in opposite directions.

[0114] Figures 22-24 show a furniture support assembly **102** comprising a pivoting furniture support mechanism comprising a ball **108** which pivots within a socket or cone **110**. A furniture component or furniture support mechanism **112** is adapted by machining a circular depression **114** into the underside of the furniture component or into a furniture support mechanism. The circular depression is larger in diameter than a disk slider **116** providing for omni-directional sliding of a disk slider **116**. The first surface of the slider, the disk, moves laterally along the second surface of the slider, the depressed surface **114** of the furniture component or furniture support mechanism omni-directionally. A deformable buffer **118** for example a rubber gasket, provides for cushioned movement of the disk within the depression. A flange **120** is used to conjoin the sliding surfaces of the depressed surface and the disk surface for omni-directional lateral movement in relation to each other without becoming separated. This furniture support assembly allows for omni-directional pivoting and omni-directional sliding of this furniture support assembly in relationship to a furniture component, another furniture support assembly, or a height adjustable telescoping column. This is because the second surface of the slider can be machined into a support assembly, a support assembly block, or directly on top of a flat surface of a height adjustable telescoping column. The entire ball-socket-disk assembly of Figure 22 can be inverted and slidably received in a circular depression machined into the attachment block **124**. Applicant notes, the furniture component need not be modified for the subject sliding furniture support mechanism. A circular track can be bolted

to the bottom of the component. Further, the disk alone beneath, for example, a tabletop provides the slide required by the subject invention.

[0116] Figures 25-27 show a furniture support assembly **130** comprising a pivoting furniture support mechanism **132** and a sliding furniture support mechanism **134**. The pivoting furniture support mechanism **132** comprises a ball **136** pivoting within a socket or cone **138**. A furniture component or furniture support mechanism **140** is adapted by machining an oblong depression **142** into the underside of the furniture component or into a furniture support mechanism. The oblong depression at its narrowest width is a greater distance than the diameter of a disk slider providing for omni-directional sliding of a disk slider but favoring bi-directional sliding owing to the fact that the length of the depressed oblong surface comprises a much greater distance in length than the diameter of a disk slider. The oblong depression **142** slidably receives a disk **144** attached to the pivoting furniture support mechanism and forms the sliding furniture support mechanism. The first surface of the slider, the disk, moves laterally along the second surface of the slider, the depressed oblong surface of the furniture component or furniture support mechanism omni-directionally but is specially adapted for favoring bi-directional sliding at a much greater distance than its omni-directional capabilities. A deformable buffer **146** lines the wall of the depression to provide cushioned movement of the disk within the depression. Plates **148** along each side of the depression ~~is~~ used to conjoin the sliding surfaces of the depressed surface and the disk surface for omni-directional lateral movement in relation to each other without becoming separated. Applicant notes, the furniture component need not be modified for the subject sliding furniture support mechanism. A simple track can be bolted to the bottom ~~or~~ of the furniture component. Further, the disk alone beneath, for example, a tabletop provides the slide required by the subject invention. This embodiment further comprises a frictional slide control **150**. The frictional slide control is a knob **152** which moves the disk **144** toward or away from the depressed surface to increase or decrease the friction between the disk surface and the depressed surface to control the slide. It is noted that the pivoting and sliding furniture support mechanisms shown engage the furniture component. These mechanisms can likewise be configured to engage the column or another support assembly. The furniture support assembly allows omni-directional pivot and omni-directional slide, but favors

bi-directional sliding of this furniture support assembly in relationship to a furniture component, another furniture support assembly, or a height adjustable telescoping column. This is because the second surface of the slider can be machined into a support assembly or a support assembly block positioned above a height adjustable telescoping column.

[0119] Figure 31 shows another preferred embodiment of a furniture support assembly **184** comprising a pivoting furniture support mechanism **186** and a sliding furniture support mechanism **188**. The pivoting furniture support mechanism has a ball **190** and socket **192**. Rollers **194** are rotatably mounted to the surface of the socket to provide the first surface of the sliding furniture support mechanism. The rollers **194** are captured within a track **196** which provides the second surface of the slider. In this embodiment, the pivoting furniture support mechanism is threadably attached to a telescoping column **198** and the track **196** of the slider engages the furniture component or another furniture support assembly. This furniture support assembly allows bi-directional omni-directional pivot and rotatable bi-directional slide.

[0124] Figure 60 shows a preferred embodiment of stacked furniture support mechanisms. Three pivoting and sliding mechanisms are stacked atop a pivoting mechanism. The pivoting furniture support mechanism shown in Figure 10 is connected to a telescoping column **200**. The pivoting and sliding furniture support mechanisms shown in Figure 19 ~~is are~~ stacked upon the pivot, the pivoting and sliding mechanism shown in Figure 16 is stacked upon that and finally the pivoting and sliding mechanism shown in Figure 22 is stacked upon that mechanism. Note, each mechanism has plates and connectors to attach one mechanism to another. For example, a base plate **202** of one pivoting and sliding furniture support mechanism is attached to a top plate **204** of another pivoting and sliding mechanism. The upper most pivoting and sliding mechanism is mounted on a spindle **206**. A first end **205** of the spindle is attached to the furniture support mechanism. A second end **207** of the spindle rotatably engages receiving sleeve **208** on the adjacent pivoting and sliding mechanism. One skilled in the art will appreciate that there are many ways to attach one mechanism to another. The uppermost mechanism allows omni-directional pivot and the sliding mechanisms ~~provide bi-directional allow multi-directional~~ slide.

[0127] The illustrated embodiment of stacked furniture support mechanisms provided omni-directional pivot and bi-directional multi-directional slide. It should be apparent to one skilled in the art that by varying the orientation of stacked mechanisms one can achieve omni-directional pivoting and omni-directional sliding of the furniture component in relationship to one or more telescoping columns. For example, stacking two bi-directional sliding mechanisms at 90 degrees will allow the furniture component to slide back and forth and side to side. Likewise, stacking bi-directional pivots at 90 degrees will allow the furniture component to tilt back and forth and side to side. It is the pivotal and sliding engagement of the telescoping columns with the component that allows the telescoping members of the columns to remain aligned and functional within the pedestal.

[0130] Figure 66A and 66B show another preferred embodiment of the pedestal of the subject invention. In this embodiment, the pedestal has two telescoping columns and the furniture component **224** is a chair seat. A back support **226** is fixedly attached to the lower sections **228** of the telescoping columns. The pedestal sits on casters **230** and the base comprises a swivel **232**. Swivels are well known in the art. Briefly, a swivel includes an upper plate **231**, a lower plate **233** and a low friction bearing assembly **229**. The lower friction bearing assembly separates the upper and lower plates and allows the unit to swivel. In a particularly preferred embodiment, the swivel has a friction swivel control means to selectively control the ease of swivel in the swivel mechanism by affecting the friction. The swivel is shown ~~in cross-section~~ in figure 66B.

[0131] Figures 67A and 67B and 68A and 68B show other preferred embodiments of the pedestal of the subject invention. The subject pedestals comprise two telescoping columns. In each embodiment, the furniture component **234** is a chair seat that has been adapted to slidably engage the furniture support mechanism. Additionally, in each embodiment, the lower section of the second column is pivotally or fixedly connected to the lower section of the first column.

[0133] Figure 70A and 70B show another preferred embodiment of the pedestal of the subject invention. This two column pedestal has a chair seat for a furniture component **240**. A back support **242** slidably engages the furniture support mechanism **244** through slidable engagement means **243**.

In this embodiment, the slidable engagement means include a track **245** with a slot to receive threaded pins **247** which slide along the slot. One skilled in the art is well aware of other means by which the back support can slidably engage the columns so that the support can move relative to the furniture component. The pedestal base has a swivel **246** which is shown in cross-section in Figure 70B and sits on casters **248**.

[0135] Figure 72 shows another preferred embodiment of a pedestal of the subject invention. The subject pedestal has electro-mechanical telescoping columns. This embodiment also has a second furniture support mechanism that is a table top. The first furniture component **256** is supported by four telescoping columns. Disposed above each column is a pivoting and sliding furniture support mechanism **258**. The columns thus pivotally and slidably engage the first furniture component which can slide and pivot above them permitting the columns telescoping members to remain aligned and functional. A second furniture component **260** slides relative to the first **256**. In this embodiment, the second furniture component **260** is supported by four telescoping electro-mechanical columns. Disposed above each column is a pivoting and sliding furniture support mechanism **262**. Thus, the telescoping members of the columns supporting the second furniture component are prevented from binding because the component can tilt and slide above them.